

# **Contents: Spill Response**

Effective Date: September 2000

Point of Contact: Environmental Subject Matter Expert

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- 3. Cleanup of Spills

#### **Definitions**

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Spill Response Subject Area Flowchart

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Chemical and Oil Spill Reporting Form

- Determine if release could result in exposure to personnel.
- Report release.
- Assess spill and notify staff to assist in cleanup.
- Notify regulatory agencies, if required, and Director's Office and DOE.
- Page Occurrence Categorizer.
- Notify Environmental Protection and Emergency Planning Team, and management.
- Complete ORPS Occurrence Report.
- Notify regulatory agencies, Director's Office, and DOE.
- Clean up spill.
- Ensure that waste is managed and waste control forms are completed.

## **Training Requirements and Reporting Obligations**

This subject area contains training requirements. See the Training and Qualifications Web

Site.

This subject area contains the following reporting obligations in case of release of oil, hazardous substances, or radioactive materials:

- Environmental & Waste Management Services Division (ES) informs the Director's Office and the DOE Brookhaven Site Office (BHSO), as necessary.
- Environmental Compliance Group personnel notify the DOE-BHSO, the Director's Office, and off-site regulatory agencies, as necessary.

See the sections <u>Notification and Response Requirements for Unexpected Releases of Oil, Hazardous Substances, or Radioactive Materials and Notification Requirements for Exceedances or Potential Exceedances of Regulatory Permit Release Limits of this subject area.</u>

#### References

Hazardous Waste Management Subject Area

**Industrial Waste** Subject Area

Mixed Waste Management Subject Area

Occurrence Reporting and Processing System (ORPS) Subject Area

PCB Management Subject Area

Radioactive Waste Management Subject Area

**Training and Qualifications Web Site** 

Work Planning and Control for Experiments and Operations Subject Area

#### **Standards of Performance**

All staff and guests shall comply with applicable Laboratory policies, standards, and procedures, unless a formal variance is obtained.

All staff and guests shall promptly report accidents, injuries, ES&H deficiencies, emergencies, and off-normal events in accordance with procedures.

All staff and users shall identify, evaluate, and control hazards in order to ensure that work is conducted safely and in a manner that protects the environment and the public.

All staff and users shall ensure that they are trained and qualified to carry out their assigned responsibilities, and shall inform their supervisor if they are assigned to perform work for which they are not properly trained or qualified.

#### Management System

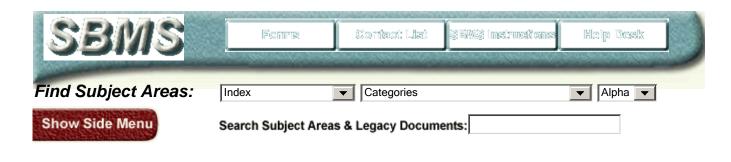
#### manayement system

This subject area belongs to the **Environmental Management System** management system.

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# **Introduction: Spill Response**

Effective Date: September 2000

Point of Contact: Environmental Subject Matter Expert

Various environmental regulations and DOE Orders require the prompt reporting and remediation of unexpected releases of oil, hazardous substances, radioactive materials, or other regulated pollutants that have the potential for impacting the environment. Reporting releases may also be required as a condition of an environmental permit whenever the permit-authorized limits of an environmental release have been exceeded. Failure to promptly report and remediate a known or suspected release of oil, hazardous substances, radioactive materials, or other regulated pollutants to the environment could result in greater damage to the environment, and unnecessarily risk exposure to people.

This subject area identifies the responsibilities of all personnel who cause, discover, respond to, or clean up an unexpected release of oil, hazardous substances, radioactive materials, or other regulated pollutants. A manager's responsibilities to report permit limit exceedances are also defined for those facilities or operations subject to an environmental permit issued by the Environmental Protection Agency, the New York State Department of Environmental Conservation, or any other agency.

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Subject Area: Spill Response

# 1. Notification and Response Requirements for Unexpected Releases of Oil, Hazardous Substances, or Radioactive Materials

Effective Date: September 2000

Point of Contact: Environmental Subject Matter Expert

## **Applicability**

This information applies to BNL staff who have caused or become aware of any release of oil, hazardous substances, or radioactive materials; their immediate supervisors/line management; and all responders to the scene of the release.

### **Required Procedure**

Refer to the Spill Response Subject Area Flowchart for an overview of this procedure.

# Step 1 If a release occurs, staff determines if the spill response requires outside assistance. If a release occurs during routine operations and staff determines that the release has not caused an impact to soil, a waterway, or air, and will not result in exposure to personnel, staff do not have to call for outside assistance provided that all of the following conditions are met:

- The spill is onto an impermeable surface;
- The material spilled is not a highly toxic or highly volatile material like methylene chloride;
- The person responding to the spill has appropriate training and materials to clean up the spill;
- The volume spilled is less than five gallons (petroleum-based products);
- The spill is cleaned up immediately.

Examples include gram-quantity spills of dilute acids onto a workbench or floor where personnel working with the acids have neutralizing

agents at their disposal, or incidental spills of cutting fluids onto the floor in a machine shop and personnel have sorbent pads available in the shop's spill kit.

Releases that meet any of the following criteria must be reported to Fire/Rescue (F/R) for outside assistance by calling extension 911 or 2222:

- Unexpected releases of oil, hazardous substances, and radioactive materials known or suspected to have impacted the environment. (Something spilled directly to the soil or a waterway must be reported. Even a few drops spilled to the soil or a waterway must be reported);
- Any hazardous material spill where the staff member's actions would result in exposures to chemicals above established safety limits;
- Spills where the staff member believes that he/she possesses neither appropriate equipment nor training to mitigate the incident;
- Airborne releases of hazardous materials or spills that result or are likely to result in an uncontrolled release of the hazardous material.

#### Step 2

Staff aware of a known release requiring outside assistance immediately **call extension 911 or 2222 (631-344-2222)**, which simultaneously notifies Safeguards & Security and F/R that a release of oil, hazardous substances, or radioactive materials has occurred.

**Note:** Staff reporting a release may take other actions as appropriate and within the scope of his or her training (e.g., completion of a Hazmat First Responder Operations level course) to secure the area, keep the released material from spreading, and assist any injured personnel. See the <u>Training and Qualifications</u> web site.

#### Step 3

Staff aware of a suspected or probable release of a hazardous substance, oil, or radioactive material from a storage tank determined by any of the following means immediately notify their supervisor and their Environmental Compliance Representative or the Environmental & Waste Management Services Environmental Compliance group at 631-872-8796 or 631-872-8800:

- Test, sampling, or monitoring results from a release detection method that indicate a release may have occurred;
- Unusual operating conditions such as the erratic behavior of product-dispensing equipment, the sudden loss of product from a storage tank, an unexpected presence of water in a tank, or the physical presence of a hazardous substance or an unusual level of vapors on a site that are of unknown origin;

	<ul> <li>Impacts in the surrounding area, such as evidence of hazardous substances, oil, or resulting vapors in soils, basements, sewer and utility lines, and nearby surface waters;</li> <li>Any other conditions or indications of a suspected release.</li> </ul>
Step 4	Staff reporting the release provide the following information (if known) when calling 911 or 2222:  Name, department/division affiliation, and phone number; Location and time of the release; Material released (if known); Approximate quantity released; Brief description of the incident and actions already taken; Names of other personnel notified/responding to the incident.  Note: For spills of polychlorinated biphenyls (PCBs) or materials suspected to contain PCBs that occur outdoors, follow this procedure. For spills of PCBs occurring indoors, refer to the PCB Spill/ Fire Response, Reporting and Cleanup section in the PCB Management Subject Area.
Step 5	Staff aware of a release notify the appropriate department/division management of the release as soon as possible.
Step 6	In accordance with the BNL Emergency Plan, the Incident Commander (IC) and the Emergency Response Organization (ERO) assess the nature and extent of the spill and notify additional personnel, as appropriate, to assist with the cleanup of spilled materials.  Environmental & Waste Management Services (ES), Plant Engineering, Radiological Control, and Safety & Health Services personnel may be called upon to do the following:  • Identify the spilled material if not yet known; • Support efforts to contain materials spilled; • Minimize impacts to the environment; • Assist in the recovery and disposal of spilled products; • Clean up materials and contaminated soils; • Provide expertise regarding the packaging of wastes to control costs associated with shipping and disposal.

	Note: Several memoranda of agreement exist with many outside agencies to obtain necessary resources to supplement BNL in the mitigation and cleanup of spills.  Note: The spill must be handled in accordance with the Incident Command System (ICS), including the assignment of the F/R incident response number for tracking.
Step 7	When the emergency situation ends, cleanup may commence based on the type of incident. The IC hands over command and control of the incident to the appropriate individuals for cleanup.  Organizations causing and/or otherwise responsible for releases of oil or hazardous substances are responsible for the proper cleanup and disposal of contaminated soils and cleanup materials. Responsibility includes financial coverage for all spill response and remedial activities, waste management and disposal activities, and other costs associated with remediation/restoration of the spill site. See Section Cleanup of Spills of this subject area for further details.
Step 8	ES determines if notifications to off-site regulatory agencies are required and makes notifications as appropriate. ES completes the Chemical and Oil Spill Reporting Form.
Step 9	ES informs the Director's Office and the DOE Brookhaven Site Office (BHSO), as necessary.
Step 10	The organization responsible for the release pages the Occurrence Categorizer at 631-453-5887 as soon as practical, but allows enough time so that a determination of reportability can take place within two hours of the spill. Refer to the Occurrence Reporting and Processing System (ORPS) Subject Area for details.  Note: Call extension 2238 (or 2222) to request assistance in contacting the Occurrence Categorizer.

## **Guidelines**

Each department/division should keep a spill response kit appropriate to the materials they have in stock. The kit should include, but not be limited to, sorbent pads and socks compatible with materials likely to be spilled, neutralizing agents, barrier tape, and protective gloves. The locations of spill kits along with information on the types of materials present, their intended uses, and instructions on their use should be clearly posted or otherwise distributed to staff who should know how to use the spill kits.

Small leaks (a couple of drops) of automotive fluids onto impervious surfaces like asphalt and concrete do not have to be reported.

If there is any doubt about what to do when a spill occurs, call 911 or 2222.

## References

Occurrence Reporting and Processing System (ORPS) Subject Area

PCB Management Subject Area

**Training and Qualifications Web Site** 

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Subject Area: Spill Response

# 2. Notification Requirements for Exceedances or **Potential Exceedances of Regulatory Permit Release Limits**

Effective Date: September 2000

Point of Contact: Environmental Subject Matter Expert

## **Applicability**

This information applies to staff and managers of facilities or operations that possess environmental permits with authorized release limits.

## **Required Procedure**

This procedure does not apply to permit limit exceedances that are ordinarily reported to regulatory agencies through routine reports.

Step 1 Staff or facility managers who become aware that an authorized permit release limit has been or may be exceeded immediately take appropriate actions to stop the release, and notify the Environmental Compliance Group in the Environmental & Waste Management Services Division (ES), the organization's ES&H coordinator, and the organization's Environmental Compliance Representative (ECR). Provide the following information to the ES Environmental Compliance Group, the ES&H Coordinator, and the ECR: Name, department/division affiliation, and phone number; Location and the time exceedance was discovered;

- Permit number and permit limit exceeded;
- Brief description of the incident and corrective actions already taken;
- Names of other personnel notified/responding to the incident.

Note: This procedure does not apply to permit limit exceedances that are ordinarily reported to regulatory agencies through routine reports, such as the Monthly Discharge and Monitoring Report.

Step ∠	Stan reporting an exceedance or potential exceedance notiny appropriate department/division management of the incident as soon as possible.
Step 3	The Occurrence Categorizer, assisted by the Department Chair/Division Manager, the ES Environmental Compliance Group, the ES&H Coordinator, and the ECR, categorizes the occurrence. The Facility Manager completes an ORPS Occurrence Report, as necessary. See the Occurrence Reporting and Processing System (ORPS) Subject Area for information.
Step 4	Environmental Compliance Group personnel who are contacted about an exceedance, or a potential exceedance of an authorized release limit, notify the DOE Brookhaven Site Office (BHSO), the Director's Office, and off-site regulatory agencies, as necessary.
Step 5	Environmental Compliance Group personnel provide support in controlling, containing, and minimizing the impacts of the release to the facility and environment.

#### References

Occurrence Reporting and Processing System (ORPS) Subject Area

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Subject Area: Spill Response

# 3. Cleanup of Spills

Effective Date: September 2000

Point of Contact: Environmental Subject Matter Expert

## **Applicability**

This information applies to the Incident Commander (IC) who, after determining that the emergency is over, coordinates the cleanup of the spill. This information also applies to the personnel cleaning up the spill and the organization responsible for the spill.

## **Required Procedure**

Step 1	The Incident Commander (IC) commences the cleanup of the spill by assembling the appropriate personnel and equipment.
Step 2	The IC determines the method of cleanup. See the Work Planning and Control for Experiments and Operations Subject Area.
Step 3	Personnel clean up the spill, placing the waste in the appropriate containers. See the following subject areas for information:  • Hazardous Waste Management • Mixed Waste Management • Radioactive Waste Management
	PCB Management
Step 4	<ul> <li>The organization responsible for the spill does the following:</li> <li>Adds the incident response number on the Waste Control Form and containers;</li> <li>Places the required waste label on the container holding the waste.</li> </ul>
Step 5	The organization responsible for the spill manages all waste in accordance with the following subject areas:
	Hazardous Waste Management     Radioactive Waste Management

	Industrial Waste     Mixed Waste Management
Step 6	The organization responsible for the spill ensures that the waste is moved to the appropriate storage area.
Step 7	The organization responsible for the spill processes the Waste Control Form, ensuring that the incident response number is on the form, and provides the Environmental & Waste Management Services Division with the numbers of Waste Control Forms for the wastes generated.

## References

Hazardous Waste Management Subject Area

**Industrial Waste** Subject Area

Mixed Waste Management Subject Area

PCB Management Subject Area

Radioactive Waste Management Subject Area

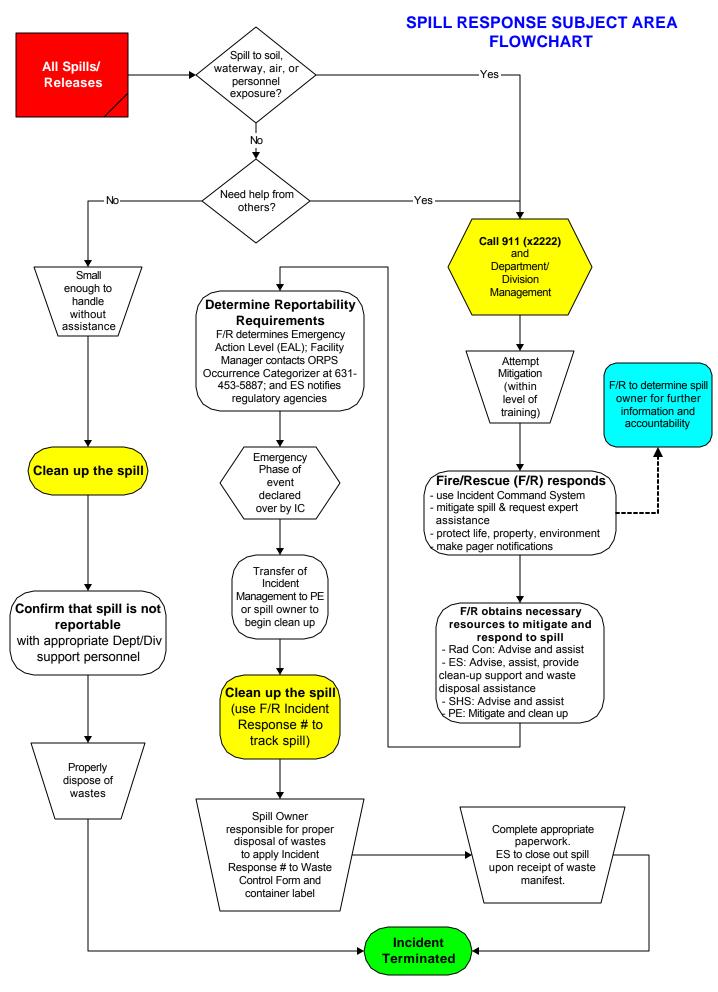
Work Planning and Control for Experiments and Operations Subject Area

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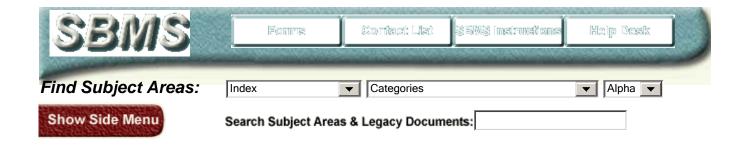
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# ENVIRONMENTAL SERVICES DIVISION CHEMICAL AND OIL SPILL REPORTING FORM

INITIAL NOTIFICATION Date:		Time:					
By (Name, Affiliation):							
Personnel Responding at Scene:							
SPILL INFORMATION Date:				Time:			
Material Spilled:							
Source of spill:							
Quantity:	Location:						
Resp. Dept:	P. O. C.						
Fire & Rescue Incident Response #:							
DETAILS AND REMEDIAL ACTI	ON						
POSSIBLE HEALTH OR FIRE HA	ZARDS			Yes	No		
POTENTIAL FOR GROUND WAT		INATIC	N:	Yes	No		
Sampled: Yes No				100	1,0		
Type of samples:		Nı	umber of sam	nles:			
Location:		111	annoci oi sain	<u>pres.</u>			
GOVERNMENT NOTIFICATION	REQUIRED:	NYSD	EC	Yes/No			
		EPA		Yes/No	Person	Time	
		SCDH	S	Yes/No	Notified	Notified	
NYSDEC, Albany, 24-hr No.: 518-457-7362			EC Spill #:				
EPA National Response Center: 1-800			RC Ref. #:				
Suffolk County Department of Health: 631-854-2537			S Spill No#:				
NOTIFICATION OF DOE OFFICE			No		Person	Time	
REQUIRED:					Notified	Notified	
Brookhaven Group, G. Granzen - Ext.	4089 or R. Desi	marais - l	Ext. 5434				
NOTIFICATION OF DIRECTOR'S	S OFFICE				Person	Time	
REQUIRED:			Yes/No		Notified	Notified	
M. Beckman – Ext 5483 for J. Tarpini	an						
ADDITIONAL COMMENTS:							
Report Filed By:			Date:				
Cc: N. Acampora (NYSDEC) B. Hooda M. Allocco R. Howe							
D. Bauer R. Lee		T. Roza					
D. Bennett E. Murph							
A. Bou G. Olser S. Ferrone D. Pagu			J. Tarpinian				
S. Ferrone D. Paque G. Goode P. Pohlo			M. Van Essendelft J. Williams				
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# **Definitions: Spill Response**

Effective Date: September 2000

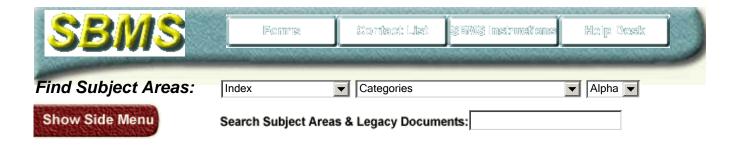
Point of Contact: Environmental Subject Matter Expert

Term	Definition	
hazardous substance	Any element, compound, mixture, solution, or substance specifically designated by the Environmental Protection Agency (EPA) under section 102 of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). Any substance designated under section 311 of the Clean Water Act (CWA). Any toxic pollutant designated under section 307(a) of the CWA. Any hazardous air pollutant designated under section 112 of the Clean Air Act. Any listed or characteristic hazardous waste designated under section 3001 of the Resource Conservation Recovery Act. Any imminently hazardous chemical, substance or mixture that EPA has taken action on pursuant to section 7 of the Toxic Substance Control Act.	
oil	Any kind or form of petroleum including but not limited to fuel oil, engine oil, lubricating oil, sludge, oil refuse, and oil mixed with other wastes.	
radioactive material	Any material, equipment, or system component determined to be contaminated or suspected of being contaminated. Radioactive material also includes activated material, sealed and unsealed sources, and material that emits radiation.	
release	Any unauthorized spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing directly or indirectly of oil, hazardous substances, radioactive materials, or any other substance which results in the formation of a hazardous substance upon release so that the substance or any related constituent thereof, or any degradation product of such a substance or of a related constituent thereof, may enter the environment.	
spill or spillage	Any escape of a hazardous substance or oil from the containers employed in the normal course of storage, transfer, processing, or use.	
storage tank	An aboveground tank, an underground tank, or a non-stationary tank, and any associated piping, lines, dikes, curbs, transfer stations, and ancillary equipment.	

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# **Revision History: Spill Response**

Point of Contact: Environmental Subject Matter Expert

## **Revision History of this Subject Area**

Date	Description	Management System
June 2004 Minor Rev. 3.4	"Brookhaven Area Office (BAO)" is replaced by "Brookhaven Site Office (BHSO)."	Environmental Management System
September 2000	This revision extends the subject area to include all of the Laboratory's expectations of how an unexpected chemical spill or release should be handled from emergency notification (calling 911) to cleanup and disposal. It integrates the actions of several organizations into one cohesive operation.  The important points of this revision are the following:  • The Departments/ Divisions still retain the ability to clean up "small" spills within their capabilities and dispose of them through regular channels;  • One number will now be used to track the spill from "cradle to grave": the Fire/Rescue Incident number;  • The spill owner (Department/Division) is accountable through all steps for action items and funding;  • There is a new cleanup section noting actions and	Environmental Management System

	responsibilities; and  • There is a new flowchart to outline the procedure.  The sections are rewritten to clarify all responsibilities during a spill emergency and the actions to be taken.	
July 1999	The first procedure of this subject area, "Notification Requirements for Unexpected Releases of Oil, Hazardous Substances, or Radioactive Materials" was revised. The required procedure was changed in order to clarify when spills to soil or a waterway should be reported. In addition, a list of criteria was added to the guidelines to clarify when spills that occur as a result of routine operations should be reported.  The definition of "release" was revised to include oil and radioactive materials in addition to hazardous substances.	Environmental Management System
March 1999	This subject area replaces ES&H Standard 6.1.6 and SEAPPM 6.1.6.	Environmental Management System

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